

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A device for communicating a data signal in at least one frequency range, the device being disposed at a transformer enclosure housing a pad mounted distribution transformer that forms part of a power distribution system and wherein a first communication device is disposed within the enclosure and communicates over a power line connected to the distribution transformer, comprising:

an antenna capable of communicating the data signal, said antenna having an antenna shape;

a material encasing said antenna and having an external shape different from said antenna shape, wherein said material facilitates attachment to an external surface of the transformer enclosure; and

an interface coupling said antenna to the communication device disposed ~~with~~ within the transformer enclosure.

2. (Original) The device of claim 1, wherein said material is emissive.

3. (Original) The device of claim 2, wherein said material is insulative.

4. (Previously presented) The device of claim 1, wherein said interface comprises a conductor communicatively coupled to said antenna and that passes through an aperture in the transformer enclosure.

5. (Previously presented) The device of claim 4, wherein said conductor is communicatively coupled to the first communication device.

6. (Original) The device of claim 5, wherein said first communication device provides communication to a customer premise that is electrically coupled to the transformer in the transformer enclosure.

7. (Original) The device of claim 5, wherein the first communication device is a backhaul point.

8. (Canceled)

9. (Original) The device of claim 4, wherein said antenna is communicatively coupled to at least one low voltage power line.

10. (Previously presented) The device of claim 1, further comprising an insulative material configured to be mounted between said antenna and the transformer enclosure.

11. (Previously presented) The device of claim 1, wherein-said material is disposed between said antenna and the transformer enclosure.

12. (Original) The device of claim 1, wherein said antenna receives signals in a predetermined frequency range, and wherein said material is emissive within said predetermined frequency range.

13. (Original) The device of claim 1, wherein said material has a substantially planar face.

14. (Original) The device of claim 1, wherein said antenna is disk-shaped.

15. (Original) The device of claim 1, wherein said material is insulative.

16. (Original) The device of claim 1, wherein said material comprises at least one of the following: rubber, plastic, and Mylar.

17. (Original) The device of claim 1, wherein said material has a thickness that facilitates preventing access to said antenna.

18. (Original) The device of claim 1, wherein a first external dimension of said antenna is substantially different than the first external dimension of said material.

19. (Original) The device of claim 18, wherein a second external dimension of said antenna is substantially different than the second external dimension of said material.

20. (Original) The device of claim 18, wherein said material has a rectangular box shape and said antenna has a disk shape.

21. (Original) The device of claim 1, wherein said antenna is directionally oriented within said material.

22. (Previously presented) The device of claim 1, wherein said material comprises holes to facilitate mounting to the transformer enclosure.

23. (Original) The device of claim 1, wherein said antenna is a substantially flat rectangular metallic material.

24. (Original) The device of claim 1, wherein said material prevents structural deformation of said antenna.

25. (Previously presented) A system for communicating a wireless signal at a transformer enclosure that houses a pad mounted distribution transformer that forms part of a power distribution system, comprising:

a protective material;

an antenna embedded in said material and located external to the enclosure;
and

a communication device located within the enclosure and communicatively coupled to the antenna and a power line connected to the distribution transformer.

26. (Canceled)

27. (Previously presented) The system of claim 25, wherein said communication device is communicatively coupled to at least one low voltage power line.

28. (Previously presented) The system of claim 27, wherein the low voltage power line is electrically coupled to a customer premise.

29. (Previously presented) The system of claim 27, wherein the communication device comprises a first communication device, and further comprising a second communication device in communication with said first communication device.

30. (Original) The system of claim 29, wherein said first communication device, comprises:

a first modem;

a first router in communication with said first modem; and

a first wireless transceiver in communication with said first modem.

31. (Original) The system of claim 30, wherein said second communication device, comprises:

a second modem;

a second router in communication with said second modem; and

a second wireless transceiver in communication with said second modem.

32. (Original) The system of claim 31, wherein said second wireless transceiver uses IEEE standard 802.11.

33. (Original) The system of claim 30, wherein said first wireless transceiver uses IEEE standard 802.11.

34. (Original) The system of claim 30, wherein said antenna comprises a substantially planar surface.

35. (Original) The system of claim 30, wherein said material is emissive.

36. (Original) The system of claim 30, further comprising an insulative material located between said antenna and the pad mounted electrical transformer.

37. (Previously presented) The system of claim 25, wherein said material is located between said antenna and the pad mounted electrical transformer.

38. (Original) The system of claim 30, wherein said antenna receives signals in a predetermined frequency range, and wherein said material is emissive within said predetermined frequency range.

39. (Original) The system of claim 30, wherein said antenna is disk-shaped.

40. (Canceled)

41. (Canceled)

42. (Canceled)

43. (Canceled)

44. (Canceled)

45. (Canceled)

46. (Canceled)

47. (Canceled)

48. (Canceled)

49. (Currently amended) A system for communicating a data signal at a transformer enclosure of a pad mounted distribution transformer that forms part of a power distribution system, comprising:

an antenna located ~~at~~ external to the enclosure; ~~and~~

a communication device located within the enclosure that is disposed at or below ground level; and

wherein said communication device comprises a first transceiver
communicatively coupled to the antenna and a first modem communicatively coupled to a power line.

50. (Currently amended) The system of claim 49, wherein said communication device, further comprises:

~~a first modem;~~

a first router in communication with said first modem; ~~and~~

~~a first transceiver in communication with said antenna.~~

51. (Currently amended) The system of claim ~~50~~ 49, wherein said first transceiver uses an IEEE 802.11 standard.

52. (Previously presented) The system of claim 49, wherein the power line comprises a low voltage power line electrically coupled to a customer premise.